



(19)

(11) Publication number: **0**

Generated Document.

**PATENT ABSTRACTS OF JAPAN**(21) Application number: **62282772**(51) Intl. Cl.: **B01J 13/02 A23L 1/00 A23  
1/04 A61K 9/48**(22) Application date: **09.11.87**

<p>(30) Priority:</p> <p>(43) Date of application publication: <b>16.05.89</b></p> <p>(84) Designated contracting states:</p>	<p>(71) Applicant: <b>SNOW BRAND MILK LTD</b></p> <p>(72) Inventor: <b>KIMURA TOSHIAKI SHIOTANI TOSHIAKI SAGARA YASUSHIGE</b></p> <p>(74) Representative:</p>
---	---

**(54) PRODUCTION OF  
CAPSULE WITH THIN  
COATED FILM**

(57) Abstract:

**PURPOSE:** To make the film of the above capsule extremely thin and to enhance its toughness by forming the capsule by the reaction of a liq. material constituting the capsule core with sodium alginate, etc., and heating the obtained capsule in a soln. contg. calcium salts.

**CONSTITUTION:** The capsule material consisting of the aq. raw material contg. a water-soluble bivalent metal salt or the liq. material constituting the capsule core and consisting of the aq. raw material and an oily raw material is allowed to react with sodium alginate or the soln. of a lower methoxypectin, and the reaction product is made into the capsule. The capsule is then heated in the soln.

contg. calcium salts to produce the capsule with a thin coating film. Calcium chloride, strontium chloride, etc., are appropriately used as the water-soluble bivalent metal salt.

COPYRIGHT: (C)1989,JPO&Japio

POWERED BY **Dialog**

**Capsule preparation having thin film for e.g. foods - by treating body contg. e.g. water-soluble divalent metal salt with sodium alginate or lower methoxypectin, etc.**

**Patent Assignee: SNOW BRAND MILK PROD CO LTD**

#### Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Week	Type
JP 1123625	A	19890516	JP 87282772	A	19871109	198925	B
JP 2519485	B2	19960731	JP 87282772	A	19871109	199635	

**Priority Applications (Number Kind Date):** JP 87282772 A ( 19871109)

#### Patent Details

Patent	Kind	Language	Page	Main IPC	Filing Notes
JP 1123625	A		3		
JP 2519485	B2		3	B01J-013/14	Previous Publ. patent JP 1123625

#### Abstract:

JP 1123625 A

Capsule prepn. having a thin film is produced by treating a capsule body comprising an aq. material contg. a water-soluble divalent metal salt of liq. substance constituting the core part of the capsule body comprising the above aq. material and oily substance, with a soln. of sodium alginate or lower methoxylpectin to prepare a capsule wherein the capsule body formed by the above reaction is subjected to heat-treatment in a soln. contg. calcium salt.

The water-soluble divalent metal salt is pref. chloride or strontium chloride.

USE/ADVANTAGE - Useful in foods and pharmaceuticals partic.for e.g. artificial fish eggs such as "Ikura" or fruit juice capsules.

In an example, a soln.-like aq. soln. (9 wt. parts) contg. calcium chloride (1 wt.%), gelatin (3 (2 wt.%) and salad oil (1 wt. part) were mixed. The resultant mixt. was used as the core liquor for a capsule body, dropped down via nozzles of 7mm dia. into 0.5% sodium alginate aq. soln. to give artifical fish eggs e.g. "Ikura" which comprises the capsule body contg. an oily drop of the mixt.

(Dwg.0/0)

Derwent World Patents Index

© 2002 Derwent Information Ltd. All rights reserved.

Dialog® File Number 351 Accession Number 7918780

POWERED BY **Dialog**

---

## **PRODUCTION OF CAPSULE WITH THIN COATED FILM**

**Publication Number:** 01-123625 (JP 1123625 A) , May 16, 1989

### **Inventors:**

- KIMURA TOSHIAKI
- SHIOTANI TOSHIAKI
- SAGARA YASUSHIGE

### **Applicants**

- SNOW BRAND MILK PROD CO LTD (A Japanese Company or Corporation), JP (Japan)

**Application Number:** 62-282772 (JP 87282772) , November 09, 1987

### **International Class (IPC Edition 4):**

- B01J-013/02
- A23L-001/00
- A23L-001/04
- A23P-001/04
- A61K-009/48

### **JAPIO Class:**

- 13.1 (INORGANIC CHEMISTRY--- Processing Operations)
- 11.4 (AGRICULTURE--- Food Products)
- 14.4 (ORGANIC CHEMISTRY--- Medicine)

### **Abstract:**

**PURPOSE:** To make the film of the above capsule extremely thin and to enhance its toughness by forming the capsule by the reaction of a liquid material constituting the capsule core with sodium alginate, etc., and heating the obtained capsule in a solution containing calcium salts.

**CONSTITUTION:** The capsule material consisting of the aqueous raw material containing a water-soluble bivalent metal salt or the liquid material constituting the capsule core and consisting of the aqueous raw material and an oily raw material is allowed to react with sodium alginate or the solution of a lower methoxypectin, and the reaction product is made into the capsule. The capsule is then heated in the solution containing calcium salts to produce the capsule with a thin coating film. Calcium chloride, strontium chloride, etc., are appropriately used as the water-soluble bivalent metal salt. (From: *Patent Abstracts of Japan*, Section: C, Section No. 626, Vol. 13, No. 367, Pg. 70, August 15, 1989 )

JAPIO

POWERED BY **Dialog**

---

**Basic Patent (Number,Kind,Date):** JP 1123625 A2 890516

**PATENT FAMILY:**

**Japan (JP)**

Patent (Number,Kind,Date): JP 1123625 A2 890516

PRODUCTION OF CAPSULE WITH THIN COATED FILM (English)

Patent Assignee: SNOW BRAND MILK PROD CO LTD

Author (Inventor): KIMURA TOSHIAKI; SHIOTANI TOSHIAKI; SAGARA YASUSHIGE

Priority (Number,Kind,Date): JP 87282772 A 871109

Applic (Number,Kind,Date): JP 87282772 A 871109

IPC: \* B01J-013/02; A23L-001/00; A23L-001/04; A23P-001/04; A61K-009/48

CA Abstract No: ; 112(09)075581E

Derwent WPI Acc No: ; C 89-183892

JAPIO Reference No: ; 130367C000070

Language of Document: Japanese

Patent (Number,Kind,Date): JP 2519485 B2 960731

Patent Assignee: SNOW BRAND MILK PROD CO LTD

Author (Inventor): KIMURA TOSHIAKI; SHIOTANI TOSHIAKI; SAGARA YASUSHIGE

Priority (Number,Kind,Date): JP 87282772 A 871109

Applic (Number,Kind,Date): JP 87282772 A 871109

IPC: \* B01J-013/14; A23L-001/00; A23L-001/05; A23P-001/04; A61K-009/48

Language of Document: Japanese

INPADOC/Family and Legal Status

© 2002 European Patent Office. All rights reserved.

Dialog® File Number 345 Accession Number 8703871